REMARKS

Reconsideration and allowance of this application are respectfully requested in view of the above Amendment and discussion below.

Applicants' invention, as defined by amended independent claims 1 and 8, is addressed to a printed circuit board 4 which is fixed to the housing 3 and contains a control circuit with a plurality of plugs provided along one side of the printed circuit board.

Independent claims 1 and 8 specify that the printed circuit board is a multi-layer rectangular printed circuit board having a top layer and a bottom layer as well as at least one wiring pattern layer between the top and the bottom layer. The plurality of plugs are provided along one side of that multi-layer rectangular printed circuit board.

Applicants gratefully acknowledge the allowance of claims 5, 7 and 9-15 as well as the indication of allowable subject matter in dependent claim 3.

Claims 1, 2, 4, 6 and 8 are now rejected under 35 U.S.C. §103 as unpatentable over Aoike et al. (U.S. Patent No.: 6,195,263) which is a new grounds of rejection with the previous grounds of rejection being overcome by the Amendment filed on February 9, 2005. The statement of the rejection is contained at item 9 on pages 5 and 6 of the patent Office Action. As indicated above, Applicants have amended independent claims 1 and 8 in order to more clearly recite the relationships among the items which distinguish over the prior art and particularly the reference to Aoike '263.

The presently claimed invention provides plural connectors or plugs along one side of the rectangular circuit board. This distinction provides an improvement over the prior art discussed in the background of the invention because it allows for minimizing the size of the control device, which, in turn, is important when such devices are used in vehicles as the present invention specifically requires a device for controlling a vehicle.

Additionally, the claims recite that the printed circuit board is a multilayer board with the top layer, a bottom layer and at least an intermediate layer of a wiring pattern. This particular distinction allows three-dimensional wiring and allows for substantial reduction in the size of the circuit board so that the entire structure is thereby reduced in size.

Therefore, the size of the device for controlling the vehicle is minimized by using the plurality of connectors provided along one side of the multi-rectangular circuit board and provides for easy and secure installation in the vehicle.

It is submitted that these above-two features concerning the multi-layer structure, as specifically recited, and the connectors being positioned on one side of the circuit board are not shown or disclosed by the reference to Aoiki et al.

The electronic control unit of Aoike '263 has a pad portion fixed to the terminal plate to prevent vibration of the plate under supersonic vibration to thereby provide secure bonding strength between the terminal plate and the wire during wire bonding. One lead portion of each terminal plate is connected to a pin of the connector and the leads have bent portions.

As indicated above, there is no disclosure of the recitation and particularly the arrangement whereby plural connectors or plugs are along one side of the rectangular circuit board and particularly a multi-layer rectangular circuit board having a top portion, a bottom portion and an intermediate layer of wiring between them. Additionally, there is no reason, given the nature of Aoike et al., that one skilled in the art looking at Aoike would make the necessary changes to Aoike to meet the claim limitations of independent claims 1 and 8.

Item 2 of the patent Office Action indicates that the drawings are objected to because they do not show the "bonding wire connection between the plug pins and the PCB". Applicants submit that the specification as well as the drawing is referred to as having plug pins 2 on the rear of the plug 1 connected to the printed circuit board 4 with bonding wires 5 as indicated, for example, at page 8, lines 19-21. Furthermore, with respect to the bonding wires being members of a flexible cable, Applicants point to the bottom of page 8 and the top of page 9 which indicate that the bonding wires 5 should preferably be aluminum wires

and flexible cables. As an example, bonding wires 5b of Figure 8 can be seen to be flexible as they are shown in a bent position. The discussion of the bonding wire 5b is contained at page 12, lines 6-8.

Therefore, Applicants respectfully submit that claim 1 as well as dependent claim 3 are fully supported by the originally filed specification and illustrated in the drawings in a manner consistent with the specification. Applicants respectfully request the withdrawal of the objection to the drawings.

Therefore in view of the distinguishing features between the claimed invention and the references which features are not shown or disclosed or made obvious by the reference to Aoike et al., Applicants respectfully request that his application claims 1-15, including previously allowed claims 5, 7 and 9-15 and amended independent claims 1 and 8 and dependent claims 2-4 and 6, be allowed and be passed to issue.

If there are any questions regarding this amendment or the application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned.

If necessary to effect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to effect a timely response, and please charge any deficiency in fees or credit any overpayments to Deposit Account No. 05-1323 (Docket #056208.52612US).

Respectfully submitted,

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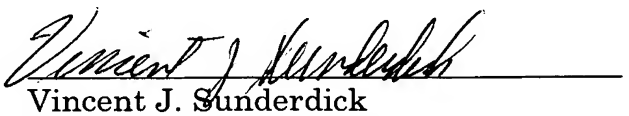

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